When Do Currency Unions Benefit From Default?

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Motivation

- Eurozone Crisis and country heterogeneity call for fiscal unions in a monetary union (Farhi and Werning, 2017).

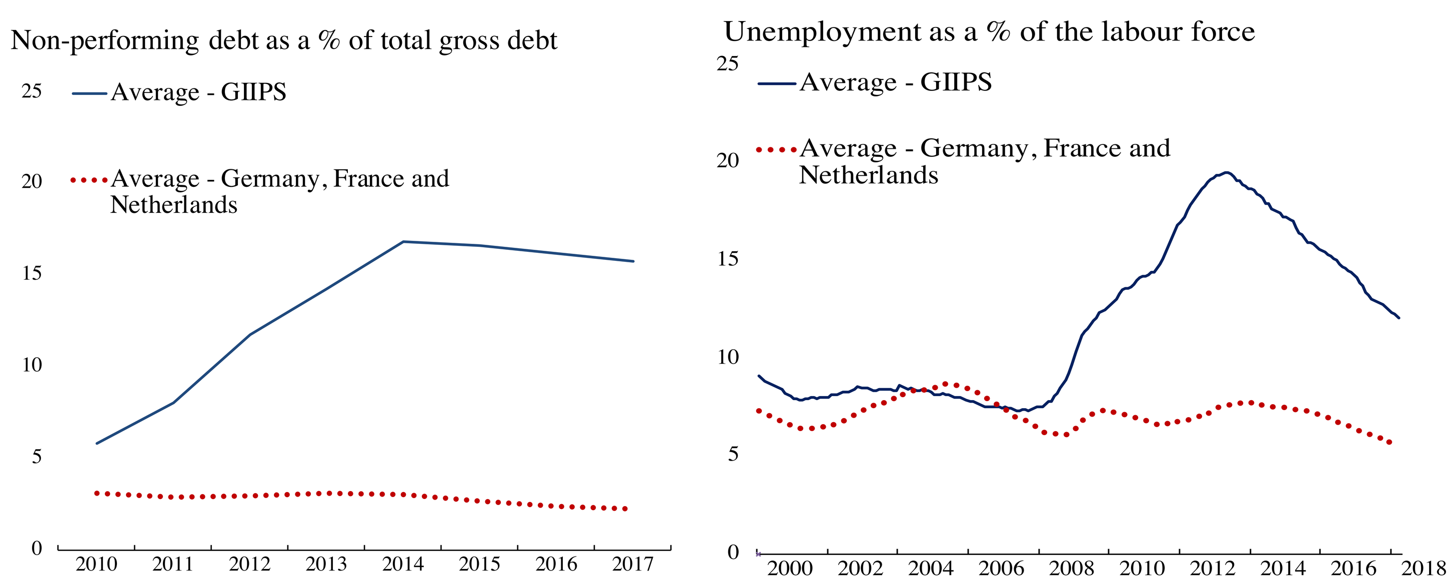


Fig 1. NPLs and unemployment heterogeneity in the Eurozone. Source: Eurostat, ECB, OECD.

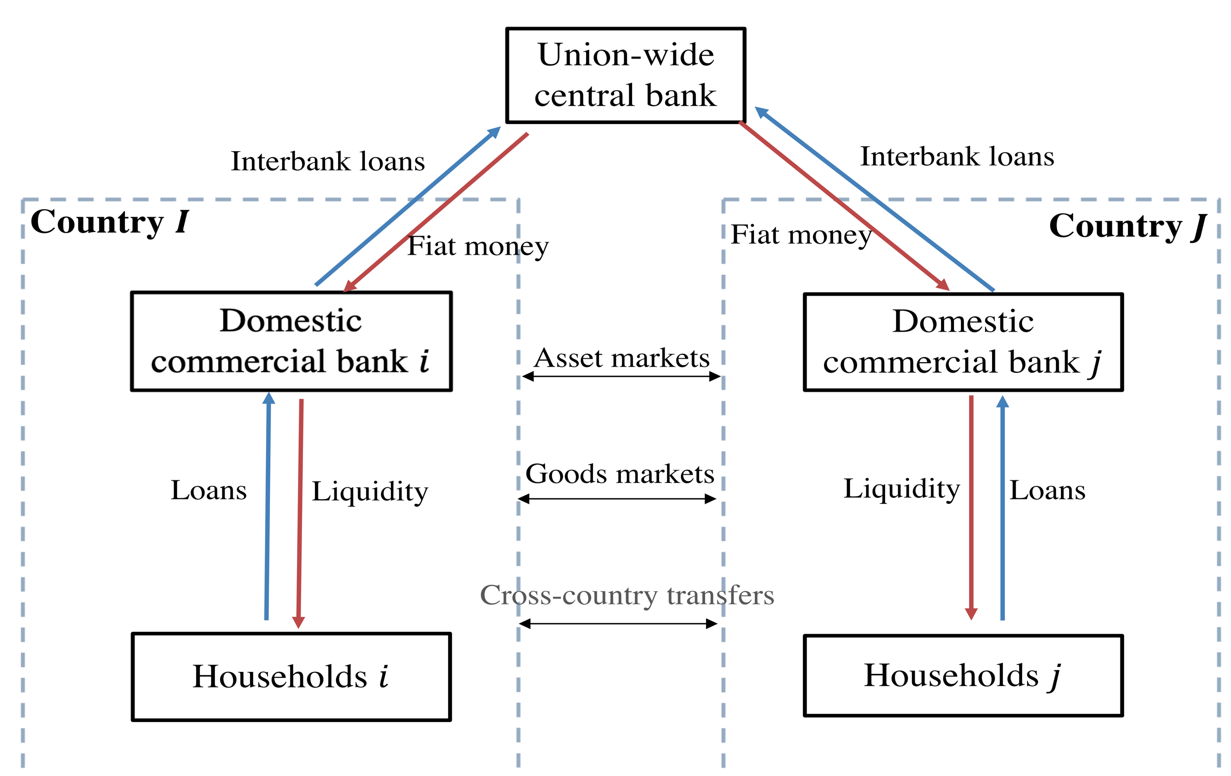
- However, fiscal unions may not be politically feasible (Sargent, 2012).
- ***Question:*** without a fiscal union, can we design the **bankruptcy code of cross-border capital markets union** as a close substitute for a fiscal union?

Bankruptcy code in practice

- Stance towards cross-border default in EA tends to be punitive, i.e., immediate liquidation.
- Progress: 2000 Insolvency Regulation -> 2015 recast regulation (clarification) -> *"2016 EU legal directive"* (**restructuring** and **softening** the traditionally punitive stance on default).

Overview of the theory

- Two-country general equilibrium with **uncertainty**, **money**, and **default**.



- **Nominal friction:** bank liquidity creation against an offsetting credit, *"inside money"* -> non-neutrality of money and price-level determinacy.
- **Credit risks:** endogenous default -> non-performing loans (NPLs) arising in equilibrium.
- **Key distortion**: currency union removes relative price between monies -> exchange rate nominal rigidity causes liquidity rationing (Drèze equilibrium) -> no "buffering" for NPLs -> hence, banking insolvency causes pecuniary externality.
- **Main idea:** bankruptcy code adjustment to remove this pecuniary externality.

Regime design

- **Regime A (baseline – internal devaluation):** no fiscal union, punitive cross-border bankruptcy code, $\lambda > \lambda^H$ (e.g. EA).
- **Regime B (fiscal union)**: cross-country fiscal transfers (e.g. China, US (see Sargent, 2012)).
- **Regime C (bankruptcy leniency)**: no fiscal union, but lenient cross-border bankruptcy code, $\underline{\lambda} < \lambda < \lambda^H$.

Key results

Proposition 1 (capital flow and banking crisis)

- In **Regime A (internal devaluation)**, the volatility of domestic credit risks and cross-border capital flow leads to domestic banking insolvency.
  banking insolvency -> bailout cost/fiscal austerity -> pecuniary externality
- **Regime B (fiscal union)** neutralizes the domestic credit risks and cross-border capital flow does not drive banking insolvency.
- In **Regime C (bankruptcy leniency)**, default in cross-border capital markets prevents domestic banking insolvency.

Proposition 2 (Regime C and Pareto improvement)

- Without a fiscal union, bankruptcy leniency in the cross-border capital markets can Pareto improve a currency union.

Intuition: default -> voluntary liquidity transfer cross-border -> transaction cost ⬇ "invisible hand"

Welfare comparative statics

	Regime A benchmark	Regime B fiscal union	Regime C bankruptcy leniency
Allocation within state	- -	-	-
Risk sharing	- -	-	-
Asset prices	- -	-	-
Bailout cost	yes	no	no
Banking crisis	yes	no	no

The number of "-" indicates the severity of distortions

Why is bankruptcy leniency important ?

Bankruptcy leniency recoups some lost benefits of nominal floating exchange rates as shock absorbers

Extension: consider credible national currencies

- **Proposition 3 (FX and credit risk neutralisation):** with competitive floating exchange rates, domestic credit risks are state invariant, banks survive in all states.

Remark: Current account and capital account exactly balance in all states.

Policy implication and implementation

- For a currency union lacking in a fiscal union, the bankruptcy code needs to soften.
- Because it compensates for the loss of FX.

Key references

Adam, K. and Grill, M. (2017). Optimal sovereign default. American Economic Journal: Macroeconomics, 9(1):128–64.
Dubey, P. and Geanakoplos, J. (2003). Inside and outside fiat money, gains to trade, and IS-LM. Economic Theory, 21(2-3):347-397.
Dubey, P., Geanakoplos, J., and Shubik, M. (2005). Default and punishment in general equilibrium. Econometrica, 73(1):1–37.
Farhi, E. and Werning, I. (2017). Fiscal unions. American Economic Review, 107(12):3788–3834.
Franks, J. and Sussman, O. (2005). Financial innovations and corporate bankruptcy. Journal of Financial Intermediation, 14(3):283–317.
Geanakoplos, J. and Tsomocos, D. P. (2002). International finance in general equilibrium. Research in Economics, 56(1): 85–142.
Peiris, M. U. and Tsomocos, D. P. (2015). International monetary equilibrium with default. Journal of Mathematical Economics, 56:47–57.
Shapley, L. and Shubik, M. (1977). Trade using one commodity as a means of payment. Journal of political economy, 85(5):937–968.